



Vaccination Recommendations

for

College/University Students

Immunizations play a vital role in decreasing the risk of outbreaks or epidemics of vaccine preventable diseases on university campuses across the state.

The Immunization Program of the Kansas Department of Health and Environment recommends that all college students be immunized against **tetanus, diphtheria, hepatitis B, varicella** (chicken pox), **influenza**, and **measles, mumps, and rubella**. It is also recommended that students in the health professions have additional protection against **polio**. **Meningococcal** vaccination should be **considered**.

Proper immunization documentation requires obtaining written record of immunization dates (month, date, and year) from immunization certificates/records or medical records. To increase compliance with the university's immunization policies, an exclusion policy is recommended for deficient students, with only medical or religious exemptions.

Kansas Recommendations for Immunization of College/University Students

MENINGOCOCCAL

On September 30, 1997, the American College Health Association (ACHA) stated that “college students **consider** vaccination against Meningococcal Disease”.

SPECIAL CONSIDERATIONS:

1. Health care providers inform incoming and current college freshman, particularly those who are planning or currently living in dormitories or residence halls, as well as their parents, about meningococcal disease and the benefits of vaccination.
2. College freshmen who want to reduce their risk for meningococcal disease may want to consider meningococcal vaccine administration.
3. Revaccination may be considered for freshman who were vaccinated more than 3 to 5 years earlier.
4. Routine revaccination of college students who were vaccinated as freshman is **not** indicated.

CONTRAINDICATIONS:

1. Anaphylactic reaction to a previous dose of meningococcal vaccine

TEMPORARY PRECAUTION:

1. Pregnancy†
2. Moderate to severe illness ¶

† Meningococcal vaccine should not be used during pregnancy unless there is a substantial risk of meningococcal infection. There have been no documented adverse events among either pregnant women or newborns; however, safety of the vaccine in pregnancy has not been established.

¶ Vaccination should **not** be postponed because of minor illness with or without low-grade fever, such as otitis media, diarrhea, vomiting, or mild upper-respiratory illness.

References

1. Centers for Disease Control and Prevention. Meningococcal Disease and College Students –recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2000;49(RR-7): 11-20.
2. Centers for Disease Control and Prevention. Prevention and Control of Meningococcal Diseases –recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2000;49(RR-7): 1-10

Kansas Recommendations for Immunization of College/University Students

MEASLES, MUMPS, and RUBELLA (MMR)

MEASLES:

Provide evidence of immunity to measles through one of the following:

1. Documented physician-diagnosed measles
2. Laboratory evidence of immunity to measles
3. Two doses of MMR given at least one month apart, on or after the first birthday, to all individuals born on or after 1957

MUMPS:

Provide evidence of immunity to mumps through one of the following:

1. History of mumps disease
2. Laboratory evidence of immunity to mumps
3. One dose of MMR, on or after the first birthday, if the date of birth is on or after 1957

RUBELLA

Provide evidence of immunity to rubella through one of the following:

1. Laboratory evidence of immunity to rubella
2. One dose of MMR, on or after the first birthday, if the date of birth is on or after 1957

SPECIAL CONSIDERATIONS:

1. Measles has occurred in health care workers born before 1957. Students in the health professions born before 1957 with no evidence of immunity should be considered for vaccination.
2. Individuals who are not health care workers, and who were born before 1957, can be considered immune and do not need vaccination.
3. It is recommended that susceptible students in the health professions have two doses of MMR, given one month apart.

CONTRAINDICATIONS:

1. Anaphylactic reaction to neomycin and/or gelatin
2. Immunosuppression*

TEMPORARY PRECAUTIONS:

1. Pregnancy‡
2. Moderate to severe illness ¶
3. Recent administration of antibody-containing blood products §

*MMR should be administered to all asymptomatic HIV-infected persons and be considered for all symptomatic HIV-infected persons who might otherwise be eligible for measles vaccine.

‡ Women should avoid becoming pregnant for three months following vaccination.

¶ Vaccination should **not** be postponed because of minor illness with or without low-grade fever, such as otitis media, diarrhea, vomiting, or mild upper-respiratory illness.

§ Vaccine should be given 14 days before or deferred at least 3 months after an individual has received IG, and 6 months after whole blood or other blood products containing antibodies.

References

1. Centers for Disease Control and Prevention. Measles, Mumps, and Rubella-Vaccine Use and Strategies for Elimination of Measles, Rubella, and Congenital Rubella Syndrome and Control of Mumps—recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1998;47(RR-8)
2. Center for Disease Control and Prevention. Update on adult Immunization-recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1991;40(RR-12):1-94

Kansas Recommendations for Immunization of College/University Students

TETANUS and DIPHTHERIA

Provide evidence of immunity to tetanus and diphtheria through **all** of the following:

1. Three doses of tetanus and diphtheria containing vaccine, with 4 weeks minimum between the first two doses, and at least 6 months between the 2nd and 3rd dose
2. Ongoing ten year Td boosters

SPECIAL CONSIDERATIONS:

1. In the event of a puncture injury, if greater than 5 years have elapsed since the last Td booster, a booster is indicated.
2. If the Td series is completed after the individual is 7 years old, only 3 doses are required.*

CONTRAINDICATIONS:

1. Anaphylactic reaction to previous dose of DTP, DT, DTAP, or Td
2. Severe neurological hypersensitivity to previous dose of Td

TEMPORARY PRECAUTIONS:

1. Pregnancy—Td may be administered after the first trimester
2. Moderate to severe illness ¶
3. Temperature >103F following previous dose of Td indicates high serum levels of tetanus antitoxin.
In this instance boosters should only be given after 10 years, even in the event of a puncture injury, in order to prevent an arthus type reaction.

*Td rather than DT is the vaccine of choice for all persons older than 7 years of age. Side effects from higher doses of diphtheria toxoid are more common in adults than among younger children.

¶ Vaccination should **not** be postponed because of minor illness with or without low-grade fever, such as otitis media, diarrhea, vomiting, or mild upper-respiratory illness.

References

1. Centers for Disease Control and Prevention. Diphtheria, tetanus, and pertussis—recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1991;40(RR-10): 1-28.

Kansas Recommendations for Immunization of College/University Students

POLIO (Health Professions Students Only)

Provide evidence of immunity to polio through the following:

1. Three doses of EIPV, with at least 4 weeks between doses 1 and 2, and 6 to 12 months between doses 2 and 3

SPECIAL CONSIDERATIONS:

1. Immunization is recommended for travelers to areas or countries where poliomyelitis is still an epidemic or endemic.
2. When completing the primary polio vaccination series as an adult (greater than or equal to 18 years of age), EIPV is recommended due to a slightly higher risk of OPV-associated paralysis among adults.
3. Adequate completion of the primary series during childhood consists of **one** of the following:
 - a. 3 doses OPV, with 4 weeks between doses 1 and 2, and the 3rd dose on or after the 4th birthday
 - b. 4 doses OPV, with 4 weeks between doses
 - c. 3 doses EIPV, with 4 weeks between doses 1 and 2, and the 3rd dose on or after the 4th birthday

or

 - d. 4 doses EIPV, with 4 weeks between doses
 - e. Any 4 dose combination of OPV/EIPV, with 4 weeks between all 4 doses

CONTRAINDICATIONS:

Anaphylactic reaction to streptomycin, polymyxin B, or neomycin or previous dose of IPV

TEMPORARY PRECAUTIONS:

1. Pregnancy*
2. Moderate to severe illness ¶

*If immediate protection against polio is needed, IPV may be given. No convincing evidence exists documenting adverse events of IPV in developing fetuses or pregnant women. However, vaccination of pregnant women should be avoided if possible.

¶ Vaccination should **not** be postponed because of minor illness with or without low-grade fever, such as otitis media, diarrhea, vomiting, or mild upper-respiratory illness.

References

1. Centers for Disease Control and Prevention. Updated Recommendations of Poliomyelitis in the United States—recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2000;49(RR-5): 1-28.

Kansas Recommendations for Immunization of College/University Students

HEPATITIS B

Provide evidence of immunity to hepatitis B (HBV) through one of the following:

1. Three doses of hepatitis B vaccine with doses 1 and 2 one month apart, and the 3rd dose at least 2 months after the 2nd, but there must be at least 4 months between dose 1 and dose 3
2. Serological evidence of immunity indicated by positive anti-HBc (antibody to hepatitis B core antigen) and negative HBsAg (hepatitis B surface antigen)*

SPECIAL CONSIDERATIONS:

1. Vaccination is **highly** recommended for all adults at increased risk of occupational, social, family, environmental, or illness-related exposure to hepatitis B virus including:
 - homosexual males
 - injecting drug users
 - individuals with multiple sex partners (more than one partner in 6 months)
 - history of other sexually transmitted diseases
 - household contacts of HBV carriers
 - sexual contacts of HBV carriers
 - policemen and firemen
 - healthcare workers
 - health profession students
 - residents and staff of developmentally disabled institutions
2. Because adolescence and young adulthood are common years of high risk behavior, hepatitis B vaccine is recommended for **all** students.

CONTRAINDICATIONS:

1. Anaphylactic reaction to baker's yeast
2. Anaphylactic reaction to a previous dose of hepatitis B vaccine

TEMPORARY PRECAUTION:

1. Moderate to severe illness ¶

* Two positive tests for HBsAg within a 6 month period indicate a chronic carrier state of hepatitis B. Appropriate education, consultation, and/or referral for the individual and contacts are required.

¶ Vaccination should **not** be postponed because of minor illness with or without low-grade fever, such as otitis media, diarrhea, vomiting, or mild upper-respiratory illness.

References

1. Centers for Disease Control and Prevention. Hepatitis B Virus: A Comprehensive Strategy for Eliminating Transmission in the United States through Universal Childhood Vaccination –recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1991;40(RR-13): 1-19
2. Center for Disease Control and Prevention. Update on adult Immunization-recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1991;40(RR- 12):1-94

Kansas Recommendations for Immunization of College/University Students

VARICELLA

Provide evidence of immunity to varicella through **one** of the following:

1. History of varicella (chickenpox) disease
2. Two doses of varicella vaccine 4-8 weeks apart for recipients greater than or equal to 13 years of age
3. One dose of varicella vaccine for recipients 12 months to 12 years of age

SPECIAL CONSIDERATION:

1. Varicella vaccine may be considered for post-exposure prophylaxis to varicella disease from a close contact, and one dose given to susceptible persons within 3 to 5 days of varicella exposure.

CONTRAINDICATIONS:

1. Anaphylactic reaction to gelatin or neomycin
2. Immunosuppression
3. Active untreated tuberculosis

TEMPORARY PRECAUTIONS:

1. Pregnancy†
2. Moderate to severe illness ¶
3. Recent administration of antibody-containing blood products§

† Women should avoid becoming pregnant for at least one month following vaccination.

¶ Vaccination should **not** be postponed because of minor illness with or without low-grade fever, such as otitis media, diarrhea, vomiting, or mild upper-respiratory illness.

§ Vaccine should not be given for at least 5 months after the administration of whole blood, plasma, or IgG VZIG.

References

1. Centers for Disease Control and Prevention. Updated recommendation of the Prevention of Varicella—recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1999;48(RR-6): 1-5.

Kansas Recommendations for Immunization of College/University Students

INFLUENZA

Students in institutional settings should be encouraged to receive influenza vaccine annually to minimize any disruption of routine activities during epidemics and to reduce the likelihood of acquiring influenza infection.

SPECIAL CONSIDERATIONS:

Groups at increased risk for influenza-related complications and their care-givers should receive annual vaccination including:

- persons \geq 50 years of age
- persons with chronic medical conditions
- immunosuppressed individuals
- healthcare workers
- health profession students
- household contacts of high risk individuals
- residents and staff of long-term care facilities

CONTRAINDICATION:

1. Anaphylactic reaction to eggs

TEMPORARY PRECAUTION:

1. Moderate to severe illness ¶

¶ Vaccination should **not** be postponed because of minor illness with or without low-grade fever, such as otitis media, diarrhea, vomiting, or mild upper-respiratory illness.

References

1. Centers for Disease Control and Prevention. Prevention and Control of Influenza Vaccines—recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2000;49(RR-3): 1-19
2. Center for Disease Control and Prevention. Update on adult Immunization—recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1991;40(RR-12):1-94

Kansas Recommendations for Immunization of College/University Students

PNEUMOCOCCAL

Pneumococcal vaccine is recommended for all students who are at increased risk of pneumococcal disease or its complications.

HIGH RISK GROUPS:

1. Persons \geq 65 years of age
2. Persons living in institutional settings
3. Persons with chronic illnesses including the following:
 - cardiovascular diseases
 - pulmonary diseases
 - diabetes mellitus
 - alcoholism
 - cirrhosis
 - cerebrospinal fluid leaks
4. Persons with immunosuppressive conditions including the following:
 - splenic dysfunction or absence
 - Hodgkin's disease
 - lymphoma
 - generalized malignancy
 - multiple myeloma
 - chronic renal failure
 - nephrotic syndrome
 - organ transplantation
 - bone marrow transplantation
 - asymptomatic or symptomatic HIV infection
5. Persons receiving immunosuppressive chemotherapy, including long-term systemic corticosteroids

SPECIAL CONSIDERATIONS:

A second dose of pneumococcal vaccine, administered 5 or more years after the first, is recommended for persons at high-risk for pneumococcal infection, such as immunocompromised individuals.

CONTRAINDICATION:

1. Anaphylactic reaction to a previous dose of pneumococcal vaccine

TEMPORARY PRECAUTION:

1. Moderate to severe illness ¶

¶ Vaccination should **not** be postponed because of minor illness with or without low-grade fever, such as otitis media, diarrhea, vomiting, or mild upper-respiratory illness.

References

1. Centers for Disease Control and Prevention. Prevention of Pneumococcal Diseases—recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1997;46(RR-8): 2-4

DEFINITION OF ABBREVIATIONS

ACIP:	Advisory Committee on Immunization Practices
ANTI-HBs:	Antibody to hepatitis B surface antigen
CDC:	Centers for Disease Control and Prevention
CRS:	Congenital rubella syndrome
DT:	Diphtheria and tetanus toxoid (pediatric)
DTaP:	Diphtheria and tetanus toxoid and acellular pertussis (pediatric)
DTP:	Diphtheria and tetanus toxoid and pertussis vaccine (pediatric)
HAV:	Hepatitis A virus
HB:	Hepatitis B
HBIG:	Hepatitis B immune globulin
HBsAg:	Hepatitis B surface antigen
HBV:	Hepatitis B virus
Hib:	Haemophiles influenzae type B
HIV:	Human immunodeficiency virus
EIPV:	Inactivated polio virus vaccine
KDHE:	Kansas Department of Health and Environment
OPV:	Oral polio virus vaccine
MMR:	Measles, mumps, and rubella vaccine
MMWR:	Morbidity and Mortality Weekly Report
Td:	Tetanus and diphtheria toxoid (adult)